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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,385

01/30/2006

Tetsuya Bono

126308

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OLIFF & BERRIDGE, PLC

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EXAMINER

WOOD, JARED M

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

02/03/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/566,385	Applicant(s) BONO, TETSUYA	
	Examiner JARED WOOD	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1793

DETAILED ACTION

The examiner acknowledges receipt of the amendment filed 11/19/2009. Claim 9 is cancelled and claims 1-8 are currently pending. In view of the amendment to the specification, the previously issued objection to the drawings is withdrawn. In view of the amendment to claim 8, the previously issued claim objection is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-352837

(Kazuo).

As to claims 1, Kazuo discloses a fuel cell system which comprises a fuel cell stack (abstract), a load device (§ 0005), a fuel gas feeder (§ 0039) and air supply equipment (§ 0043) (gas supply unit), an anode and a cathode (§ 0002) which receive fuel gas and oxidizing gas respectively from the fuel gas feeder and the air supply equipment, a control section (§ 0038), and a supply pressure limiting valve (§ 0040) and an exhaust gas pressure control valve (§ 0045). Claim 1 further contains functional limitations for many components especially those of the gas permeation quantity estimation unit and the correction unit. Applicant is reminded that while features of an apparatus may be recited either structurally or functionally, claims directed to an

Art Unit: 1793

apparatus must be distinguished from the prior art in terms of structure rather than function. In *re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). The structural prior art features, though not disclosed to be used in the manner suggested by applicant, are nevertheless capable of performing the claimed functions.

As to claims 2 and 3, although the limitations of claims 2 and 3 contain only functional limitations which could be performed by the above listed prior art system, these functional limitations do imply the need for a voltage sensor to detect the voltage output of the fuel cell stack. Kazuo discloses the inclusion of a voltage sensor in his fuel cell system (§ 0063).

As to claims 4 and 5, although the limitations of claims 2 and 3 contain only functional limitations which could be performed by the above listed prior art system these, functional limitations do imply the need for a pressure sensor located in the fuel supply line to detect the fuel gas pressure. Kazuo discloses a number of pressure sensors located in the fuel supply and return lines (§ 0039 and 0041).

As to claims 6-8, these claims contain only functional limitations. Applicant is reminded that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In *re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). The structural prior art features, though not disclosed to be used in the manner suggested by applicant, are nevertheless capable of performing the claimed functions.

Response to Arguments

Applicant's arguments filed 11/19/2009 have been fully considered but they are not persuasive. Applicant argues that the Saito reference fails to disclose each and every feature of applicant's claims, most especially, control of the fuel cell on the basis of load and gas permeation. As was discussed with Mr. Bachner during the interview on 11/03/2009, since the claims are directed to a fuel cell system rather than a method of operating a fuel cell system, functional limitations are considered to be naturally present in a prior art apparatus if the prior art apparatus is merely capable of providing the claimed function. Upon further consideration of the Saito reference, particularly in view of the human translation, the examiner has determined that the Saito fuel cell system would have been capable of providing applicant's claimed functions.

Saito's system contains analogous (at least) structural features to that of applicant's system as described above. It is noted that applicant's control section carries out the claimed functions based on input from pressure and load information. It is also noted that applicant has stated that prior art fuel cells generate "required electric energy in response to the supply of the fuel gas and the oxidizing gas by quantity each corresponding to a required load" (¶ 0002). This shows that the load of a fuel cell corresponds to the output of the fuel cell which may be measured by a voltage sensor. The Saito reference discloses a variety of calculations and modes of operation of the fuel cell system provided by Saito's control section which are based upon input from pressure, temperature, and voltage sensors (¶ 0050-141).

Because of the variety of calculations and operating modes provided by the control section it is expected that the control section could be readily configured to provide any desired

Art Unit: 1793

control of Saito's fuel cell system on the basis of data provided by pressure, temperature, and voltage sensors.

Any adjustments to the previously issued rejection result from applicant's amendments to the claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JARED WOOD whose telephone number is (571)270-5911. The examiner can normally be reached on Monday - Friday, 7:30 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JARED WOOD/
Examiner, Art Unit 1793

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit
1793